Amendments to the Claims

Applicant requests entry of the following amendments. The following is a complete listing of the claims pending in this application:

1. (currently amended) A method for treating a skin wound, ~~delivering a molecule to the skin of a patient~~ comprising:

transforming amniotic epithelial cells with one or more recombinant expression vectors encoding a bioactive protein,

culturing said transformed cells, and

administering the transformed cells topically to the skin wound, said cells being supported on a membrane substrate, whereby said cells contact the skin wound for expression of the bioactive protein for treating the skin wound.

~~administering amniotic epithelial cells to the skin of the patient;~~

~~wherein said cells are capable of delivering said molecule, are genetically modified to deliver said molecule, are part of a reconstituted tissue membrane, and are topically applied to said skin.~~

2-6. (canceled)

7. (currently amended) The method of claim ~~3~~1, wherein said bioactive protein is ~~molecule is selected from the group consisting of~~ a growth factor~~, a ligand, an immunologically active molecule, an anti-microbial protein, an anti-inflammatory protein, an anti-neovascularization protein, a protease inhibitor, a hair growth promoting factor, an antiviral protein, a bioactive antibody, a bioactive single chain antibody, PDGF-beta, KGF, KGF-2, FGF-2, EGF, TGF-a, epiregulin, VEGF, NGF, GM-CSF, TGF-b, IGF-I, HGH, a bactericidal/permeability-increasing protein, a protein, a polypeptide, a peptide, a defensin, a collectin, Granulysin, Protegrin-1, SMAP-29, lactoferrin, Calgranulin C, interleukin-1 receptor antagonist,~~

~~soluble TNF receptor, soluble CTLA4, interleukin-10, endostatin, angiostatin, soluble VEGF receptor, TIMPs, PAI-1, PAI-2, ecotin, wnt, sonic hedgehog, soluble herpes viral receptor Hve A, herpesvirus entry mediator C (HveC), the herpesvirus immunoglobulin-like receptor (HIgR), and soluble herpes surface protein gD~~.

8-9. (canceled)

10. (currently amended) The method of claim ~~2~~1, wherein said amniotic cells are human amniotic epithelial cells.

11. (canceled)

12. (currently amended) The method of claim 1, wherein said ~~tissue~~ membrane substrate is selected from the group consisting of an amniotic membrane, a matrix, a gel, a web, a net, ~~a natural membrane,~~ and a synthetic membrane~~, and a material capable of performing the supporting function of a membrane~~.

13. (currently amended) The method of claim 1~~2~~, wherein said membrane substrate is selected from the group consisting of ~~amnion membrane,~~a cerebral dura mater membrane, a fascia lata membrane, and a pericardium membrane.

14. (canceled)

15. (currently amended) The method of claim ~~14~~1, wherein said recombinant expression vector is selected from the group consisting of a retroviral vector, an adenoviral vector, a lentiviral vector, ~~a viral vector,~~ an adeno-associated viral vector, a plasmid vector and a cosmid vector.

16. (currently amended) A ~~composition~~topical system for treating a skin wound, comprising:

amniotic epithelial cells transformed with one or more recombinant expression vectors encoding a bioactive protein for expression of the bioactive protein by the transformed cells; and

a membrane substrate, such that said cells are supported on the membrane substrate so as to contact the skin when topically applied.

~~delivering a molecule to the skin of a patient comprising cells capable of delivering said molecule to the patient, a support capable of facilitating delivery of said molecule to the patient, wherein said cells are capable of delivering said molecule in an environment found on the skin, are genetically modified to deliver said molecule, are part of a reconstituted tissue membrane, and are topically applied to said skin~~.

17-19. (canceled)

20. (currently amended) The ~~composition~~system of claim ~~18~~16, wherein said cells are human amniotic epithelial cells.

21. (new) The system of claim 16, wherein said bioactive protein is a growth factor.

22. (new) The system of claim 21, wherein said growth factor is selected from the group consisting of platelet-derived growth factor-beta, keratinocyte growth factor, keratinocyte growth factor-2, fibroblast growth factor-2, epidermal growth factor, transforming growth factor-a, epiregulin, vascular endothelial growth factor, nerve growth factor, granulocyte monocyte colony stimulating factor, transforming growth factor-b, insulin-like growth factor-I, HGH, and tissue inhibitors of metalloproteinase.

23. (new) The system of claim 16, wherein said membrane substrate is selected from the group consisting of an amniotic membrane, a matrix, a gel, a web, a net, and a synthetic membrane.

24. (new) The method of claim 7, wherein said growth factor is selected from the group consisting of platelet-derived growth factor-beta, keratinocyte growth factor, keratinocyte growth factor-2, fibroblast growth factor-2, epidermal growth factor, transforming growth factor-a, epiregulin, vascular endothelial growth factor, nerve growth factor, granulocyte monocyte colony stimulating factor, transforming growth factor-b, insulin-like growth factor-I, HGH, and tissue inhibitors of metalloproteinase.